

AMENDMENTS TO THE CLAIMS

Please amend claims 1, 3, 6 and 7 and cancel claim 2 as follows:

1. (currently amended) A process for controlling a fuel cell system comprising a fuel cell, which generates power by reacting anode gas and cathode gas supplied to the fuel cell, a compressor which varies a rotation number thereof to thereby control ~~controls~~ an amount of the cathode gas to be supplied to the fuel cell, and a pressure control valve which varies an opening thereof to thereby control ~~controls~~ a pressure of the cathode gas, wherein the pressure control valve is provided downstream of a cathode of the fuel cell,

said process comprising:

first controlling said compressor to change ~~changing~~ an amount of the cathode gas supplied to the fuel cell ~~by said compressor during~~ at a start of a transition period of said fuel cell, and thereafter changing an opening of said pressure control valve, depending on the changed amount of the cathode gas, to thereby regulate the pressure of the cathode gas, wherein an amount of power generated from the fuel cell is changed during the transition period.

2. (canceled)

3. (currently amended) A fuel cell system, comprising:
a fuel cell, which generates power by reacting anode gas and cathode gas supplied to the fuel cell,

a compressor which varies a rotation number thereof to thereby control ~~controls~~ an amount of the cathode gas supplied to the fuel cell,

a pressure control valve which varies an opening thereof to thereby control ~~controls~~ a cathode gas pressure of the fuel cell and which is provided downstream of a cathode of the fuel cell,

gas flow control means, which controls the cathode gas flowing toward an inlet side of the cathode to be a target gas flow amount corresponding to a target power generation amount of the fuel cell by controlling a revolution number of said compressor, and

gas pressure control means, which controls a cathode gas pressure at the inlet to be a target gas pressure corresponding to a target gas flow amount by controlling an opening of said

pressure control valve at a stationary state, ~~and which~~ wherein the gas flow control means first controls said compressor to change the amount of the cathode gas at a start of a transition period of the fuel cell and thereafter the gas pressure control means controls the pressure control valve corresponding to a change in the gas flow amount to thereby control the cathode gas pressure to be the target gas pressure during a the transition period, depending on the gas flow amount and the target gas pressure, wherein an amount of power generated from the fuel cell is changed during the transition period while the amount of power generated from the fuel cell is not changed at the stationary state.

4. (canceled)

5. (previously presented) The fuel cell system as claimed in Claim 3, wherein said gas pressure control means during the transition period is kept operating until said gas flow amount reaches the target gas flow amount.

6. (currently amended) The fuel cell system as claimed in ~~Claim 4~~ Claim 3, wherein said gas pressure control means during the transition period is kept operating until said gas flow amount reaches the target gas flow amount.

7. (currently amended) A process for controlling a fuel cell system comprising a fuel cell, which generates power by reacting anode gas and cathode gas supplied to the fuel cell, a compressor which varies a rotation number thereof to thereby control ~~controls~~ the amount of the cathode gas to be supplied to the fuel cell, and a pressure control valve which varies an opening thereof to thereby control ~~controls~~ a pressure of the cathode gas, wherein the pressure control valve is provided downstream of a cathode of the fuel cell,

said process comprising:

controlling a power generation amount of the fuel cell by first controlling the compressor to change the flow amount of the cathode gas at a start of a transition period of the fuel cell and thereafter controlling an opening of the pressure control valve to change the pressure of the cathode gas compressively transferred into a cathode inlet side of the fuel cell depending on the changed amount of the cathode gas, and

controlling said pressure of the cathode gas to be a target gas flow amount corresponding to the detected gas flow amount, which is gradually changed, during a the transition period of said fuel cell, wherein an amount of power generated from the fuel cell is changed during the transition period.

8. (previously presented) The process as claimed in Claim 1, wherein a pressure feedback control operation for controlling the pressure of the cathode gas to be a prescribed value is avoided in the transition period of the fuel cell.

9. (canceled)

10. (previously presented) The process as claimed in Claim 1, wherein the opening of the pressure control valve for controlling the pressure of the cathode gas is decreased at an initial stage of the transition period and thereafter the opening of the pressure control valve is increased following an increase of the cathode gas flow amount.

11. (previously presented) The process as claimed in Claim 10, wherein the amount of the cathode gas is increased in the transition period.

12. (previously presented) The process as claimed in Claim 11, wherein the opening of the pressure control valve is decreased to increase the pressure of the cathode gas at the initial stage of the transition period because a response of the compressor is slower than that of the pressure control valve.

13. (previously presented) The process as claimed in Claim 12, wherein the opening of the pressure control valve is increased at a next stage of the transition period following the initial stage of the transition period where the response of the compressor catches up with that of the pressure control valve.

14. (previously presented) The process as claimed in Claim 13, wherein the opening of the pressure control valve is increased at the next stage of the transition period to prevent an excessive increase in the pressure of the cathode gas.

Please add claims 15-16 as follows:

15 (new) A process for controlling a fuel cell system comprising a fuel cell, which generates power by reacting anode gas and cathode gas supplied to the fuel cell, a compressor which controls an amount of the cathode gas to be supplied to the fuel cell, and a pressure control valve which controls a pressure of the cathode gas, wherein the pressure control valve is provided downstream of a cathode of the fuel cell,

said process comprising:

changing an amount of the cathode gas supplied to the fuel cell by said compressor during a transition period of said fuel cell, and thereafter changing an opening of said pressure control valve, depending on the changed amount of the cathode gas, to thereby regulate the pressure of the cathode gas, wherein an amount of power generated from the fuel cell is changed during the transition period,

wherein the opening of the pressure control valve for controlling the pressure of the cathode gas is decreased at an initial stage of the transition period and thereafter the opening of the pressure control valve is increased following an increase of the cathode gas flow amount.

16. (new) The process as claimed in Claim 7, wherein the opening of the pressure control valve for controlling the pressure of the cathode gas is decreased at an initial stage of the transition period and thereafter the opening of the pressure control valve is increased following an increase of the cathode gas flow amount.